REMARKS

The Examiner has rejected Claim 50 under 35 USC 112, first paragraph, because the specification, while being enabling for claims 26-30, 32, 38, 47, and 52 given the broadest and reasonable interpretation of the specification these claims pertain merely to a mulch that is colored as an indicator and does not involve any chemical reactions (specification page 10, line 14-15), the specification does not reasonably provide enablement for claim 50. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with claim 50. The specification does not disclose what makes the color change or fade, is it a chemical process? How does the chemical process work and what are the chemical sand reactions involved?

The Examiner is incorrect with regard to certain of the above claims. Claims 26-30, 50 and 52 all involve a chemical reaction. Page 3 lines 9-14 discuss providing products to modify basic soil chemistry. The specification discusses providing calcium, flash or micronutrients to control pH. Page 9 lines 1-2 and page 13 lines 2-3 states that dye selected from the group consisting of acid, basic or direct dye concentrates. Further it is known that there are chemicals that are placed on litmus paper which change color based on chemical composition. The present invention uses this known technology for the mulch industry, and since mulch is made of paper, this can be accomplished.

Claim 52 is objected to because of the following informalities:

Claim 52 to better clarify the function of this claim the preamble should read --A method for indicating the chemical content of the soil comprising:--

Since it disclosed that the mulch acts as an indicator, but is not disclosed how the mulch adjusts the chemical content on the soil.

Appropriate correction is required.

For the reasons stated above, applicant does not believe that claim 52 needs to be amended.

The Examiner has rejected claim 50 as being anticipated by U.S. Patent No. 4,932,156 to Underwood.

Regarding, claim 50, Underwood teaches a colored mulch product (Underwood abstract line 1) wherein the color fades or disappears (Underwood abstract line 2) in response to a lack of nutrient or fertilizer in the mulch (Underwood abstract line 4 "ambient weather conditions"; the Examiner views "nutrient" as water and when it rain, rain is an element of ambient weather conditions, objects inherently tend to appear vibrant. As the object dries (i.e., as it losses the nutrient water) it will inherently fade).

Underwood relates to a method for controlling the color of mulch, namely retarding the fading of the color of mulch.

Claim 50, teaches a colored mulch product wherein said color fades or disappears in response to a lack of nutrient or fertilizer in said mulch. Since the specification teaches that a fertilizer or nutrient may be added to the mulch, but

does not teach that water is added to the mulch the examiner's interpretation of the claim is too broad based on the specification. Further, Underwood teaches using a coloring which does not allow the color of the mulch to fade or disappear. Therefore, Underwood cannot teach a product which color fades or disappears in response to a lack of nutrient or fertilizer in the mulch. Therefore claim 50 is not anticipated or obvious over Underwood.

The Examiner has rejected claim 47 is rejected as being anticipated by U.S. Patent No. 6,324,781 to Stevens.

Regarding claim 47, Stevens teaches a colored mulch product (Stevens abstract line 2) comprising: a material comprising a fiber cellulose, clay, loam, sand, and/or a combination of same; a binding agent (Stevens Col. 2, line 2); and a dye and/or pigment (Stevens Col. 6, line 35) produced by an agglomeration operation (Stevens Col. 2, line 50-51 teaches spraying and drying as taught by applicant on page 15 line 5 of applicant's specification. Applicant has not claimed any limitation in this claim that pertains to the mulch acting as an indicator).

The Applicant has amended the claim as taught on page 11 of the specification to state that the agglomeration is a lifting and tumbling agglomeration. Stevens as stated in the Abstract teaches a briquetting or pressure agglomeration method as stated in the Abstract, "The mat is formed by treating the paper with an adhesive, depositing the paper onto a conveyor,

compressing the paper between the rollers, and drying the paper using dryers." Therefore, Stevens does not anticipate or make obvious claim 47.

The Examiner has rejected claims 26-30, 38 and 52 as being obvious over 6,324,781 in view of 5,387,745. Regarding claim 26, 28, 29, and 30, Stevens teaches a colored mulch product (Stevens abstract line 2) consisting essentially of: a material comprising a fiber cellulose, clay, loam, sand, and/or a combination of same; a binding agent (Stevens col. 2 line 2); and a dye and/or pigment (Stevens Col. 6 line 35). Stevens teaches a dye, but is silent on the dye indicates to a user environmental conditions of the soil where said mulch is placed; the dye indicates to a user the acidity of said soil; the dye indicates to a user the moisture content of said soil; or the dye indicates to a user the chemical content of said soil.

However, the Examiner states that Brendle teaches that is old and notoriously well-known to use color (i.e., dye and/or pigment) in agricultural applications as an indicator, a label, a marker. Brendle is cited merely to teach that it is known to use color as an indicator of a particular characteristic of a parcel of land. Purely as an example, in the case of Brendle, it is an area of land that receives a coating of a chemical composition that was pre-treated with a colorant (Brendle abstract and col. 2 line 21-40). In other words, Brendle can apply to teaching an area of land that receives a coating of mulch composition that was pre-treated with a dye/pigment. It would have been obvious to modify the teachings of Stevens with the teachings of Brendle at the time of the

invention for the advantage of ease of distinction and the known advantage that the presence of color has been found that misapplications of substances is more easily avoidable as taught by Brendle (col. 2 lines 58-60) (i.e., distinction of knowing where a pesticide has been applied, knowing where a particular species/variety of plant has been planted, etc.) It is generally known that different plant varieties require different soil conditions. Thus it would have been obvious to use a green colored mulch to distinguish where grass seed was planted and a red colored mulch to distinguish where tomatoes were planted. These two colors would inherently indicate different soil conditions since grass and tomato plants require different levels of moisture, different levels of acidity, and different levels of fertilization. Using color as an indicator/marker of any property, process, or treatment it is an obvious modification for one of ordinary skill as supported by Brendle.

Claim 26 relates to a colored mulch product consisting essentially of; a material comprising a fiber cellulose, clay, loam, sand, and/or a combination of same; a binding agent; and a dye and/or pigment. The dye indicates to a user environmental conditions of the soil where the mulch is placed.

Claim 28 depends on claim 26 wherein the dye indicates to a user the acidity of said soil.

Claim 29 depends on claim 26 wherein the dye indicates to a user the moisture content of the soil.

Claim 30 depends on claim 26 wherein the dye indicates to a user the chemical content of the soil.

As stated above by the Examiner, Stevens teaches a dye, but is silent on the dye indicates to a user environmental conditions of the soil where said mulch is placed; the dye indicates to a user the acidity of said soil; the dye indicates to a user the moisture content of said soil; or the dye indicates to a user the chemical content of said soil.

Although Brendle teaches using the dye to indicate where an agricultural chemical composition has been applied. It further states that the dye is water soluble, which means that when it rains or when irrigated, the dye washes off. Further, as stated in the above claims, neither Stevens or Brendle, alone or in combination teach that the dye indicates to a user environmental conditions of the soil where said mulch is placed; the dye indicates to a user the acidity of said soil; the dye indicates to a user the moisture content of said soil; or the dye indicates to a user the chemical content of said soil. As stated above, all of this is taught in the patent application. Therefore claims 26 and 28-30 are not obvious over Stevens in view of Brendle.

Regarding claim 27, Stevens as modified teaches the mulch comprising: nitrogen, phosphorous, and potassium fortifiers (Stevens abstract last line).

Regarding claim 27, for the reasons stated above for claim 26, claim 27 is not obvious over Stevens in view of Brendle.

Regarding claim 38, Stevens as modified teaches the mulch is the same or similar color of an actual plant, flower, fruit, or vegetable of a seed planted with the mulch (Stevens col. 6 line 37).

Stevens states that "for example, the color may be green to match a lawn or grass area." Amended Claim 38 requires that the mulch be the same or similar color of an actual plant, flower, fruit, or vegetable of a seed planted with the mulch to indicate what is planted underneath the mulch. Here Stevens teaches making the mulch mat look like a grass or lawn area, not that the mulch match the color to indicate what plant is planted under the mulch. Stevens does not teach having any seed under the mulch. Stevens purely paints the mulch for aesthetic reasons, to make the mulch mat look green like grass. Therefore, claim 38 is not obvious over the prior art.

Regarding claim 52, Stevens as modified teaches a method of placing colored mulch on top of soil; inherently changing the colors of the mulch based on the condition of the soil since when it rain, rain is an element of ambient weather conditions, there is more water in the soil objects tend to appear vibrant, but as the object dries (i.e., as it loses the nutrient water) it will inherently fade. Thus the colors inherently change based on the moisture conditions of the soil.

The Examiner states that Stevens is silent on adding chemicals to the soil based on the color of the mulch. However, on one hand, it is old and notoriously well known in the art of plant husbandry to observe and test soil conditions to

see if they meet the desired parameters. It would have been obvious if they observed that the mulch was faded in appearance because of reduced moisture levels, that one of skill would obviously know to add the chemical (i.e. water) to improve the moisture conditions depending on the needs of plant varieties located in that area. On the other hand, it is old and notoriously well-known to use color as an indicator as discussed above. If grass was planted with the green colored mulch it would be obvious to add chemicals to that area to meet the needs of grass.

Claim 52 requires a method for adjusting the chemical content of soil comprising: placing a colored mulch on top of soil; changing colors of the mulch based on condition of the soil; and adding chemicals to the soil based on the color of the mulch. The claim requires that based on the color of the mulch, one would know what the condition of the soil was, i.e., lacking moisture, lacking nutrients, and then add chemicals to the soil based on the look of the mulch. Neither Stevens or Brendle teaches the mulch telling the user the condition of the soil to the user. Further, neither Stevens or Brendle teach adding chemicals to the soil. Therefore, claim 52 is not obvious over Stevens in view of Brendle.

The Examiner has rejected claim 32 as being obvious over Stevens in view of Brendle as applied to claim 26 and further in view of 5,734,167 to Skelty.

Regarding claim 32, Stevens as modified teaches coloring the mulch, but is silent on the dye is fluorescent. However, Skelty teaches it is old and notoriously well-known to dye agricultural products with fluorescent dye allowing

the mulch to glow in the dark (Skelty col. 1 lines 35-45). It would have been obvious to further modify the teachings of Stevens with the teachings of Skelty at the time of the invention since the modification is merely the selection of a known alternate coloring for the advantage of enabling safe night time agricultural operations as taught by Skelty (Skelty col. 1 lines 1-26).

Regarding claim 32, for the reasons stated above for claim 26, claim 32 is not obvious over the prior art.

Applicant believes the application is in condition for allowance.

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